

REMARKS

Claims 1-3 are pending. Claims 1-3 stand rejected.

REJECTIONS UNDER 35 U.S.C. §112

At page 2 of the Office Action "Claims 1-3 are rejected under 35 U.S.C 112, first paragraph." Specifically the Examiner stated that "the reference to the range of 'A' being +/-40% of 'D' is unclear." Applicants respectfully traverse this rejection for the reasons set forth below.

The Examiner takes the position that 'A,' which is defined in claim 1 as "the distance from the tips of the fan blade to the inside diameter of said ring," is "in the range of 9.6 inches to 22.4 inches." This view, however, misses the fact that the "range" plus or minus 40% also includes 0% for example. As such, the calculation of 0% of 'D' yields 0.00 inches. In other words, the tip of the blade is in line with the inside diameter of the ring. One of ordinary skill in the art would understand that, in view of the disclosure, the "range" referred to in the claims means that the inside diameter of the ring can either be spaced away from the tip of the fan blade ("plus") or overlap the fan blade "minus") by up to 40% of the diameter of the fan blade.

The above notwithstanding, applicants have revised claim 1 to clear up any confusion the Examiner may have with respect to the relationship of distance between the tip of fan blade 55 and the inside diameter of circumferential ring 70 (dimension 'A'). Therefore, applicants respectfully request that the rejection of claims 1-3 be withdrawn.

At page 3 of the Office Action "Claim 1 is rejected under 35 U.S.C 112, first paragraph." Specifically, the Examiner states that "it is unclear as to what is referred to as radial rings." Applicants have amended claim 1 to correct this typographical error by changing "radial rings" to "radial ribs."

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Therefore applicants respectfully request that the rejection of claim 1 under 35 U.S.C. 112, first paragraph be withdrawn.

At page 3 of the Office Action "Claim 1 is rejected under 35 U.S.C 112, second paragraph." Specifically, the Examiner states that "it is not distinct as to which grill is being referred to in line 8." Applicants have amended claim 1 to clearly indicate that the front grill is referred to at line 8 of claim 1. Therefore applicants respectfully request that the rejection of claim 1 under 35 U.S.C. 112, second paragraph be withdrawn.

REJECTIONS UNDER 35 U.S.C. §103

At page 3 of the Office Action "claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Litvin 6,071,079." Applicants respectfully submit that this rejection is overcome by the amendments to the claims for the reasons set forth below.

Applicants invention, as recited in claim 1 (as amended), includes features which are neither disclosed as suggested by Litvin, namely:

... said circumferential ring having dimensions based on a fan blade diameter D, with a dimension A of said ring being a distance from a tip of said fan blades to an inside diameter of said ring ...

... said dimension A being up to about 40% of said fan blade diameter D...

... said front grill provides a diffuse airflow from said fan based on said circumferential ring. (Emphasis added)

These features are described in applicants' specification, for example, at page 2, lines 2-5, page 5, line 19 through page 6, line 17, and figures 2 and 4.

According to claim 1, the front grill of the fan has a circumferential ring having dimensions based on a diameter of the fan blade. In

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addition, the circumferential ring of the front grill provides a diffuse airflow from the fan.

Litvin is relied upon as disclosing "a fan comprising: a fan motor housing ... a front grill... and a circumferential ring..." Office Action at page 4. The Examiner admits, however, "Litvin discloses neither said circumferential dimensions being determined by the fan blade diameter..." as well as the other dimensions and their relationship to one another. (Emphasis added). In addition, Litvin does not disclose or suggest that the front grill provides a diffuse airflow from the fan based on the circumferential ring.

By contrast, applicants' invention as recited in claim 1 requires that the circumferential ring has dimensions based on a fan blade diameter in order to provide a diffuse airflow from the fan.

It is because applicants have included the feature of a circumferential ring having dimensions based on a fan blade diameter D, that applicants are able to provide a front fan grill that provides a diffuse airflow from the fan. Litvin does not achieve this advantage because Litvin does not have a front grill circumferential ring having dimensions based on a fan blade diameter.

For the reasons set forth above, applicants' invention, as recited in amended claim 1, is not disclosed or suggested by Litvin. Furthermore, the Office Action does not cite any additional prior art to make up for the acknowledged deficiencies of Litvin. Therefore, applicants respectfully request that the rejection of claim 1 under 35 U.S.C. §103(a) be withdrawn.

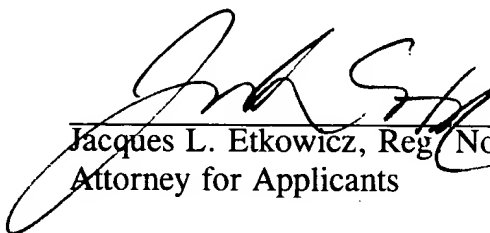
Claims 2-3 depend upon claim 1 and, thus, are likewise not subject to rejection for at least the reasons set forth above with respect to claim 1.

Applicants have added claims 4-36. The basis for these claims may be found in applicants' specification at page 3, line 2 through page 7, line 4

and figures 2, 4 and 5. These claims do not add new matter. Applicants respectfully request that these claims be entered and examined.

In view of the amendments and remarks set forth above, applicants respectfully submit that this application is in condition for allowance which action is respectfully requested.

Respectfully Submitted,



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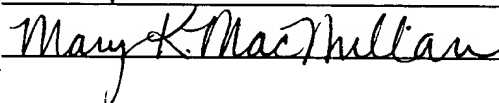
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April 24, 2002



Mary K. MacMillan

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please replace the paragraph beginning at page 6, line 5, with the following:

In Fig. 4, the ring dimensions are indicated by the letters A, B, C and D. The dimension A is the distance from the tip 75 of a blade 55 to the inside diameter of the ring 70. The dimension B is the depth of ring ~~72~~70, or the distance from the rear most portion of rim 73 to the front end of panel 71. The
5 dimension C is the width of ring ~~72~~70. The dimension D is the diameter of the blade assembly 54.

Please replace the paragraph beginning at page 4, line 7, with the following:

Referring now more particularly to FIGS. 1 and 3 of the drawings, a typical prior art fan 10 is illustrated. The fan 10 includes an electric motor housing 11, which contains an electric motor (not shown) of well known type, which may be connected to a source of electrical power (not shown). The fan motor has an output shaft 12, with a hub 14 of blade assembly 15 attached thereto, with three blades 16 being shown.

IN THE CLAIMS:

Please amend the claims as follows:

- 1
 - 2
 - 3
 - 4
1. (Amended) In combination with a fan, which fan has a fan motor, a fan blade assembly attached to and driven by ~~the said~~ fan motor, a motor housing containing ~~the said~~ motor, a rear grill to which ~~said the~~ motor

5 housing is mounted, and a front grill attached to said rear grill, the improvement
6 which comprises,

7 ~~said front grill having a plurality of concentric rings,~~

8 a plurality of spaced radial ~~rings~~ ribs ~~connected to said concentric~~
9 ~~rings,~~

10 said front grill having a center plate to which some of said radial
11 ribs are connected,

12 at least a portion of said radial ribs extending outwardly to a
13 circumferential ring,

14 said circumferential ring having a curved panel extending to a rim
15 and an inclined panel to which said ribs are connected,

16 said circumferential ring having dimensions ~~are determined~~
17 ~~by based on the~~ fan blade diameter D , with a dimension A of said ring, ~~which is~~
18 ~~the being a distance from the~~ tips of said the fan blades assembly to the an inside
19 diameter of said ring, a dimension B ~~which is the being a depth of said the~~ ring,
20 and a dimension C ~~which is the being a width of said the~~ ring,

21 said dimension A being ~~in the range of A is plus or minus~~ up to
22 about 40% of said fan blade diameter D , said dimension B equals being between
23 about 0.60 to 4.5 inches and said dimension C equals is between about 40 to
24 200% of said dimension B , and

25 wherein said front grill provides a diffuse airflow from said fan.

Claims 4 - 36 have been added.

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